

LIEBERMAN PROCESS TROUBLESHOOTING SEMINAR

ACCREDITED as Continued Professional Development Activity (SAChE-240)

09 to 13 June 2014

(Registration key date 31 March 2014)

Riviera on Vaal, Vereeniging, Gauteng

OVERVIEW



This popular PROCESS TROUBLESHOOTING SEMINAR is conducted by the internationally acknowledged expert in his trade and author of several world renowned books. The presentation is interactive and would benefit all working in the process engineering field from novice engineers to the most experienced. The full spectrum of troubleshooting methodology, practical approach as well as process fundamentals are addressed in a challenging, stimulating and enthusiastic manner. It is eye opening, challenging and inspiring!

CONTENT

Distillation: Review of Fundamentals, Tray Hydraulics, Identifying Flooded Towers, Tray Deck Plugging – Downcomer Back-up, Damaged Trays, Effects of Excessive Preheat, Control Problems, Incipient Flooding, Expanding Tower Capacity, Crude Column Fractionation, Optimizing Pumparounds, Side stream stripping Problems, Tower Pressure Drop Surveys, Tower External Temperature Surveys, Tower Bottoms Steam Stripping, Packed Tower Design and Operation, FCCU Fractionator Problems.

Reboiling and Condensing: Thermosyphon Reboilers, How Reboiler Problems Cause Tower Flooding, Kettle and Forced Circulation Problems, Fouling in Shell and Tube Exchangers, Effect of Sub-cooling on Condenser Efficiency, Pressure Control in Light Ends Columns, Air Fin-Fan Coolers, Vacuum System Inter-Stage Condensers.

Fired Heaters: Proper Use of Excess Air, Heat Balancing Convective and Radiant Sections, Draft Control, Afterburn – Causes and Cures, Air Preheaters, Preventing SO₃ Condensing, On-Stream Cleaning Techniques, Coke Formation Inside Tubes, Debottlenecking Heaters.

Pumps, Turbines and Steam Jets: Operation of Centrifugal Pumps, Mechanical Seals and Bearings, Optimum Impeller Size, Sizing Motor Drives, Troubleshooting NPSH, Steam Turbines 0 Use of Hand Valves, Surface Condensers, Vacuum Pumps, Converging – Diverging Jets, Optimising Steam Jet Performance, Pumping Viscous Fluids.

Compressors: Centrifugal Compressor Fundamentals, Relationship of Polytropic Head to Surge, Rotor Fouling, Measuring Compressor Efficiency, Reciprocating Compressor Fundamentals, Volumetric Compression Efficiency, Head-End Unloaders.

PRESENTERS



NORMAN LIEBERMAN is a chemical engineer with 35 years experience in process design and plant operations. He is an independent consultant specialising in oil refinery and chemical plant process problems and revamp studies.

Norman holds B.S and M.S degrees in Chemical Engineering from Copper and Purdue respectively and has taught in excess of 350 technical seminars on process troubleshooting and process equipment. He authored several highly acclaimed books - Troubleshooting Refinery Operations; Troubleshooting Process Operations 4th Ed; Troubleshooting Natural Gas Processing; Process Design for Reliable Operations 3rd Ed; A Working Guide to Process Equipment (co-authored by Elizabeth Lieberman); Troubleshooting Process Plant Control and Process Engineering for a small planet.



ELIZABETH LIEBERMAN is a chemical engineer with more than 20 years experience in the process industry. She works as a consultant in troubleshooting oil refinery and chemical plant process problems and is also experienced in ceramic processing, refractory processing and the conveying of non Newtonian fluids (slurry flow).

Elizabeth holds a Chemical Engineering BSc from the University of Wales and LRIC in chemistry. She co-authored the internationally acclaimed book "A Working Guide to Process Equipment" with Norman.

VENUE

Riviera on Vaal Hotel & Country Club

(26° 40" 32.5' S; 27° 56" 17.5' E)

Mario Milani Drive

Vereeniging

Gauteng

South Africa

Tel: +27 (0)16 420 1300

e-mail: reservations@rivieraonvaal.co.za

Web Site: <https://www.rivieraonvaal.co.za>

Directions: <https://www.rivieraonvaal.co.za/map-and-directions>



SOUTH AFRICAN HOST : www.resolvekzn.co.za



This excellent opportunity for the Process Engineers is proudly hosted in South Africa by UNLOCK AND ALIGN FACILITATION CC. trading as *RESOLVE*, which also offers the facilitative consulting services of Andries Burger (Pr. Chem. Eng.)



Refer to www.resolvekzn.co.za for more information on this or other exciting opportunities hosted and presented by *RESOLVE*

COURSE FEE: (Excluding VAT)

The attendance fee (excluding VAT) is set at R 26 000 per attendee, which excludes travel and accommodation cost for the attendee. A late booking fee of R 2 500.00 per attendee will apply to registrations received after 31 March 2014.

Payment: On 31 March 2014 or thereafter upon registration an invoice would be sent to the nominated contact for payment by electronic transfer within 30 days. Late payment could result in put attendance reservation of attendance at jeopardy.

REGISTRATION

A MS-Word registration form can be obtained from the 'Scheduled Events' page of the *RESOLVE* web page at www.resolvekzn.co.za. Complete the required input fields and then either e-mail the form to andries@resolvekzn.co.za or fax it to 0865 477 846.

Positions are limited and will be filled on a first-come-first served basis.

RESERVATIONS:

Due to the popularity of this course early registration is advised as available places would be allocated according to sequence in which registrations are received.

Late payment could put reservation of attendance at risk. Full payment is the final guarantee of reservation.

For cancellations received before 31 March 2014, there would be no payment due. For cancellations received after 31 March 2014 there would be no refund and the full attendance fee would be due.

If you registered and are unable to attend the event you may substitute at any time. Such substitution and name changes must be communicated to *RESOLVE* by e-mail.

The programme could be subject to change at the discretion of Norman Lieberman or *RESOLVE* and in the event of illness the date or presenter could be altered.

2014 LIEBERMAN PROCESS TROUBLESHOOTING SEMINAR

09 to 13 June 2014; Riviera on Vaal; Vereeniging; GAUTENG

Download and complete registration form and either e-mail to andries@resolvekzn.co.za or fax to +27 (0) 865 477 846

Find herewith a request for the following reservation for the above training course:

REGISTRAR DETAIL:

Name: _____ e-mail: _____ Tel: _____

INVOICE DETAIL:

Company Name: _____ VAT Nr. _____ Quotation Required? (Yes / No): _____

Company Invoice Address: _____ Order Nr. _____

Invoice Contact Name: _____ Invoice Contact e-mail: _____ Invoice Contact Tel: _____

ATTENDEE DETAILS:

	Name	Surname	ID Nr	e-mail	ECSA Nr	Dietary Requirements
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